Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10. (Cancelled)

11. (Currently Amended) A catheter for use in transseptal punctures, comprising:

(a) a hollow lumen;

(b) a first electrode positioned at the distal end of the catheter; and

(c) a second electrode positioned on ~~said~~ the catheter and spaced proximally from ~~said~~ the first electrode

wherein ~~said~~ the catheter is configured ~~such that the catheter may~~ to be inserted into a sheath for a transseptal puncture and to receive a transseptal needle ~~may be~~ urged through ~~said~~ the lumen until the tip of the needle protrudes beyond the distal end of ~~said~~ the catheter, ~~and~~

~~further~~ wherein ~~said~~ the catheter is configured such that the distal end of the catheter ~~can be used~~ serves as both ~~as~~ an electrophysiology mapping catheter for locating the fossa ovalis ~~as well as~~ and a dilator suitable for penetrating the fossa ovalis during a transseptal puncture procedure by urging ~~said~~ the catheter over a transseptal needle positioned within the lumen of the catheter, and

wherein the first electrode and the second electrode are each configured to concurrently obtain both unipolar and bipolar measurements to provide for the electrophysiology mapping.

12-16. (Cancelled)

17. (Currently Amended) The catheter of claim 11, wherein ~~said~~ the distal end of the catheter is tapered, and ~~said~~ the second electrode is spaced from ~~said~~ the first electrode by a distance of between about 2 mm and about 4 mm.

18. (Currently Amended) The catheter of claim 17, further comprising first and second electrical leads in electrical communication with ~~said~~ the first and second electrodes, and first and second cables at the proximate end of ~~said~~ the catheter, wherein ~~said~~ the first and second cables are in electrical communication with ~~said~~ the first and second electrical leads and are configured to be attached to a device for recording electrograms.

19-20. (Cancelled)

21. (New) A transseptal apparatus for locating the fossa ovalis in a patient and performing a transseptal puncture of the fossa ovalis, comprising:

(a) a hollow sheath having a distal end;

(b) the catheter of claim 11; and

(c) a recording device for recording electrograms, the recording device in electrical communication with the electrodes of the catheter.

22. (New) A method of identifying the fossa ovalis in a patient, comprising the steps of:

(a) positioning one or more electrodes of the catheter of claim 11 against the tissue of the interatrial septum of the patient;

(b) acquiring unipolar and/or bipolar electrograms of the tissue of the interatrial septum, while moving the electrodes to a plurality of positions against the tissue of the interatrial septum; and

(c) identifying the fossa ovalis on the basis of at least one of the following parameters: unipolar voltage reduction; signal fractionation; broadened signal; reduced signal slew rate; reduced local myocardial impedance; increased phase angle; and increased pacing threshold.

23. (New) The method of claim 22, wherein the fossa ovalis is also identified on the basis of bipolar voltage reduction.

24. (New) The method of claim 22, wherein the fossa ovalis is identified on the basis at least two of the following parameters: unipolar voltage reduction; signal fractionation; broadened signal; reduced signal slew rate; reduced local myocardial impedance; increased phase angle; and increased pacing threshold.

25. (New) A method of performing a transseptal puncture on a patient, comprising the steps of:

(a) positioning one or more electrodes of the catheter of claim 11 against the tissue of the interatrial septum of the patient;

(b) acquiring unipolar and/or bipolar electrograms of the tissue of the interatrial septum, while moving the electrodes to a plurality of positions against the tissue of the interatrial septum;

(c) identifying the fossa ovalis on the basis of at least one of the following parameters: unipolar voltage reduction; signal fractionation; broadened signal; reduced signal slew rate; reduced local myocardial impedance; increased phase angle; and increased pacing threshold; and

(d) penetrating the interatrial septum through the fossa ovalis in order to access the left atrium.

26. (New) The method of claim 25, wherein the positioning step comprises positioning the distal end of the catheter against the tissue of the interatrial septum of the patient.

27. (New) The method of claim 26, wherein the penetrating step comprises urging a needle through the interior of the catheter and through the fossa ovalis into the left atrium.

28. (New) The method of claim 26, wherein a bipolar and unipolar electrograms are acquired and further comprising the step of observing ST segment elevation in the unipolar electrogram in order to ensure that the distal end of the catheter is in contact with the tissue of the interatrial septum.

29. (New) The method of claim 25, wherein the fossa ovalis is also identified on the basis of bipolar voltage reduction.

30. (New) The method of claim 25, wherein the fossa ovalis is identified on the basis at least two of the following parameters: unipolar voltage reduction; signal fractionation; broadened signal; reduced signal slew rate; reduced local myocardial impedance; increased phase angle; and increased pacing threshold.

31. (New) The method of claim 22, wherein the fossa ovalis is identified on the basis of unipolar voltage reduction.

32. (New) The method of claim 25, wherein the fossa ovalis is identified on the basis of unipolar voltage reduction.

33. (New) The method of claim 25, further comprising the step of positioning an indifferent electrode within or against the patient such that the indifferent electrode may be used in conjunction

with one of the electrodes positioned against the interatrial septum in order to acquire unipolar electrograms.

34. (New) The method of claim 33, wherein the at least one indifferent electrode is chosen from the group consisting of: a skin patch, a Wilson's central terminal, and an electrode positioned in a vein of the patent.

35. (New) The method of claim 27, further comprising the steps of:

inserting a guidewire through a femoral vein of the patient and advancing the guidewire to the superior vena cava;

inserting the catheter into a sheath;

advancing the sheath and the catheter over the guidewire into the superior vena cava in order to position the distal end of the catheter against the interatrial septum;

after the penetrating step, urging the catheter and the sheath through the fossa ovalis into the left atrium; and

after the sheath has been urged through the fossa ovalis, removing the catheter and the needle from the sheath.

36. (New) A transseptal apparatus for locating the fossa ovalis in a patient and performing a transseptal puncture of the fossa ovalis, comprising:

(a) a hollow sheath having a distal end;

(b) the catheter of claim 11;

(c) a recording device for recording electrograms, the recording device in electrical communication with the electrodes;

wherein the catheter is configured such that a transseptal needle may be urged through the lumen until the tip of the needle protrudes beyond the distal end of the catheter; and

further wherein the transseptal apparatus is configured such that a user may identify the fossa ovalis of patient on the basis of at least one of the following parameters: unipolar voltage reduction; signal fractionation; broadened signal; reduced signal slew rate; reduced local myocardial impedance; increased phase angle; and increased pacing threshold.

37. (New) The transseptal apparatus of claim 37, wherein the distal end of the catheter is tapered, and the second electrode is spaced from the first electrode by a distance of between about 2 and about 4 mm.